Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A stereomicroscope, comprising:

a first beam path and a second beam path;

a beam splitter disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with **respective** ~~a~~ third **and fourth** beam ~~path~~ **paths**; and

a **single,** non-reflective, rotating shutter, wherein said shutter comprises at least one aperture diaphragm for alternately making a given first ~~or~~ **and** second beam path passable by light or blocking said given first ~~or~~ **and** second beam path in a light-tight manner.

2. (Oiginal) The stereomicroscope according to claim 1, wherein the non-reflective, rotating shutter has a plurality of opaque and transmissive regions, wherein a rotation speed of the shutter is reduceable.

3. (Original) The stereomicroscope according to claim 1, further comprising:

a first deflecting mirror disposed in the first beam path; and

a second deflecting mirror disposed in the second beam path, wherein

the first and second beam paths are superimposable at a location proximate to a position of the beam splitter.

4. (Original) The stereomicroscope according to claim 1, further comprising:

an image recording device disposed in the third beam path; and

a shutter motor to drive said rotating shutter.

5. (Original) The stereomicroscope according to claim 4, wherein the shutter motor is driven in synchronization with a reading of the image recording device.

6. (Withdrawn) A stereomicroscope, comprising:

a first beam path and a second beam path;

a beam splitter disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with a third beam path; and

a switching element having at least two shutter lamellae, one for each of the first and second beam paths, respectively, for alternately making a given first or second beam path passable by light or blocking said given first or second beam path in a light-tight manner.

7. (Withdrawn) A stereomicroscope, comprising:

a first beam path and a second beam path;

a beam splitter disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with a third beam path;

a switching element comprising an aperture diaphragm disposed in the first and second beam paths; and

a reciprocating drive to displace the switching element in an oscillating manner, for alternately making a given first or second beam path passable by light or blocking said given first or second beam path in a light-tight manner.

8. (Withdrawn) The stereomicroscope according to claim 7, wherein the aperture diaphragm comprises a substrate having first and second blocking areas.

9. (Withdrawn) The stereomicroscope according to claim 8, wherein the substrate is constructed of a glass disk.

10. (Withdrawn) The stereomicroscope according to claim 8, wherein the substrate is constructed of metal, wherein the aperture diaphragm is formed from stamping out a portion of a metal substrate.

11. (Original) A stereomicroscope, comprising:

a first beam path and a second beam path;

a first beam splitter disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with **respective** ~~a~~ third **and fourth** beam ~~**path**~~ **paths**;

a rotating shutter, wherein said shutter comprises at least one aperture diaphragm for alternately making a given first ~~**or**~~ **and** second beam path passable by light or blocking said given first ~~**or**~~ **and** second beam path in a light-tight manner; and

a display to provide image information to the first and second beam paths.

12. (Original) The stereomicroscope according to claim 11, further comprising:

left and right eyepieces;

a second beam splitter disposed in the first beam path; and

a third beam splitter disposed in the second beam path,

wherein the image information from the display is viewed by an observer through the eyepieces.

13. (Withdrawn) The stereomicroscope according to claim 12, wherein the image information from the display is provided to the observer in left and right frames in a time sequence to provide a stereoscopic image.

14. (Original) The stereomicroscope according to claim 12, further comprising:

a first prism disposed in the first beam path; and

a second prism in the second beam path; wherein the prisms guide the image information into respective eyepieces.

15. (Withdrawn) The stereomicroscope according to claim 14, wherein the prisms are each 30 degree prisms.

16. (Withdrawn) The stereomicroscope according to claim 11, wherein the shutter is one half transmissive and the other half black and opaque.

17. (Withdrawn) The stereomicroscope according to claim 11, wherein the first beam

splitter is a pupil splitter having two deflective mirrors to deflect one half of the image information along the first beam path and the other half of the image information along the second beam path.

18. (New) A stereomicroscope, comprising:

a first beam path and a second beam path;

a beam splitter disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with respective third and fourth beam paths; and

a non-reflective, rotating shutter, wherein said shutter comprises at least one aperture diaphragm for alternately making a given first and second beam path passable by light or blocking said given first and second beam path in a light-tight manner; wherein

at least a portion of the third and fourth beam paths are located in a stereomicroscope.

19. (New) The stereomicroscope according to claim 18, wherein the non-reflective, rotating shutter has a plurality of opaque and transmissive regions, and wherein a rotation speed of the shutter is reduceable.

20. (New) The stereomicroscope according to claim 18, further comprising:

a first deflecting mirror disposed in the first beam path; and

a second deflecting mirror disposed in the second beam path,

wherein the first and second beam paths are superimposable at a location proximate to a position of the beam splitter.

21. (New) The stereomicroscope according to claim 18, further comprising:

an image recording device disposed in the third beam path; and

a shutter motor to drive said rotating shutter.

22. (New) The stereomicroscope according to claim 21, wherein the shutter motor is driven in synchronization with a reading of the image recording device.

23. (New) A stereomicroscope, comprising:

a first beam path and a second beam path;

a first beam splitter disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with respective third and fourth beam paths;

a rotating shutter, wherein said shutter comprises at least one aperture diaphragm for alternately making a given first and second beam path passable by light or blocking said given first and second beam path in a light-tight manner; and

a display to provide image information to the first and second beam paths; wherein

at least a portion of the third and fourth beam paths are located in a stereomicroscope.

24. (New) The stereomicroscope according to claim 23, further comprising:

left and right eyepieces;

a second beam splitter disposed in the first beam path; and

a third beam splitter disposed in the second beam path,

wherein the image information from the display is viewed by an observer through the eyepieces.

25. (New) The stereomicroscope according to claim 24, further comprising:

a first prism disposed in the first beam path; and

a second prism in the second beam path; wherein the prisms guide the image information into respective eyepieces.

26. (New) A stereomicroscope, comprising:

a first beam path and a second beam path;

a beam splitter disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with respective third and fourth beam paths; and

a single, non-reflective, rotating shutter, wherein said shutter comprises at least one aperture diaphragm for alternately making a given first and second beam path passable by light or blocking said given first and second beam path in a light-tight manner; wherein

an image generated by a display device is conveyed along the first and second beam paths and passes the single, non-reflective rotating shutter before being superimposed on

another beam path.

27. (New) The stereomicroscope according to claim 26, wherein the image generated by a display device is conveyed along the third and fourth beam paths after being conveyed along the first and second beam paths, respectively.

28. (New) The stereomicroscope according to claim 27, wherein the third and fourth beam paths pass through a first and second eyepiece, respectively.

29. (New) The stereomicroscope according to claim 26, wherein the non-reflective, rotating shutter has a plurality of opaque and transmissive regions, and wherein a rotation speed of the shutter is reduceable.

30. (New) The stereomicroscope according to claim 26, further comprising:

a first deflecting mirror disposed in the first beam path; and

a second deflecting mirror disposed in the second beam path,

wherein the first and second beam paths are superimposable at a location proximate to a position of the beam splitter.

31. (New) The stereomicroscope according to claim 27, further comprising:

an image recording device disposed in the third beam path; and

a shutter motor to drive said rotating shutter.

32. (New) The stereomicroscope according to claim 31, wherein the shutter motor is driven in synchronization with a reading of the image recording device.

33. (New) The stereomicroscope according to claim 11, wherein:

an image generated by the display is conveyed along the first and second beam paths and passes the rotating shutter before being superimposed onto another beam path.

34. (New) The stereomicroscope according to claim 33, wherein the image generated by the display is conveyed along the third and fourth beam paths after being conveyed along the first and second beam paths, respectively.

35. (New) The stereomicroscope according to claim 34, wherein the third and fourth beam paths pass through a first and second eyepiece, respectively.

36. (New) The stereomicroscope according to claim 33, further comprising:

left and right eyepieces;

a second beam splitter disposed in the first beam path; and

a third beam splitter disposed in the second beam path,

wherein the image information from the display is viewed by an observer through the eyepieces.

37. (New) The stereomicroscope according to claim 36, further comprising:

a first prism disposed in the first beam path; and

a second prism in the second beam path; wherein the prisms guide the image information into respective eyepieces.